



Router

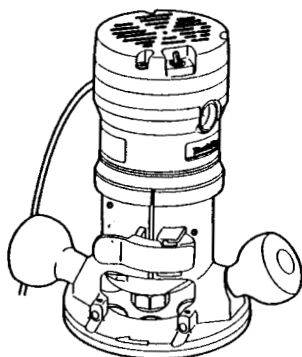
MODEL RF1100

MODEL RF1101 Variable Speed

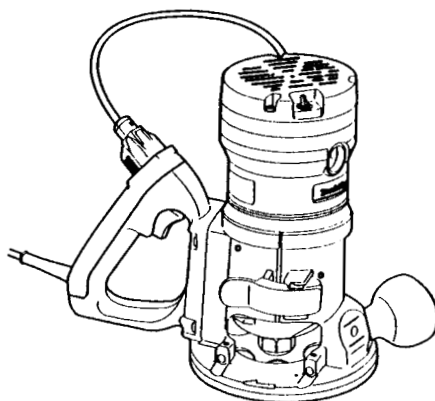
MODEL RD1100

MODEL RD1101 Variable Speed

INSTRUCTION MANUAL



RF1100
RF1101



RD1100
RD1101

SPECIFICATIONS

Model	Collet chuck capacity	No load speed (RPM)	Overall height	Net weight
RF1100	1/2" and 1/4"	24,000/min.	223 mm (8-3/4")	3.2 kg (7.1 lbs)
RF1101		8,000 — 24,000/min.		
RD1100		24,000/min.		
RD1101		8,000 — 24,000/min.		3.6 kg (7.9 lbs)

• Manufacturer reserves the right to change specifications without notice.

• Note: Specifications may differ from country to country.

WARNING: For your personal safety, READ and UNDERSTAND before using.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

GENERAL SAFETY RULES

USA001-1

(For All Tools)

WARNING! Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

SAVE THESE INSTRUCTIONS

Work Area

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

Electrical Safety

4. **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adaptor plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.**
5. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
6. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
7. **Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.
8. **When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W."** These cords are rated for outdoor use and reduce the risk of electric shock.

Personal Safety

9. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.

10. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.
11. **Avoid accidental starting. Be sure switch is off before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.
12. **Remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
13. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
14. **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

Tool Use and Care

15. **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
16. **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
17. **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
18. **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
19. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
20. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
21. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
22. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may become hazardous when used on another tool.

Service

23. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
24. **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.

Specific Safety Rules

1. Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
 2. Wear hearing protection during extended period of operation.
 3. Handle the bits very carefully.
 4. Check the bit carefully for cracks or damage before operation. Replace cracked or damaged bit immediately.
 5. Avoid cutting nails. Inspect for and remove all nails from the workpiece before operation.
 6. Hold the tool firmly with both hands.
 7. Keep hands away from rotating parts.
 8. Make sure the bit is not contacting the workpiece before the switch is turned on.
 9. Before using the tool on an actual workpiece, let it run for a while. Watch for vibration or wobbling that could indicate improperly installed bit.
 10. Be careful of the bit rotating direction and the feed direction.
 11. Do not leave the tool running. Operate the tool only when hand-held.
 12. Always switch off and wait for the bit to come to a complete stop before removing the tool from workpiece.
 13. Do not touch the bit immediately after operation; it may be extremely hot and could burn your skin.
 14. Always lead the power supply cord away from the tool towards the rear.
- SAVE THESE INSTRUCTIONS.**

SYMBOLS

The followings show the symbols used for tool.

V volts

A amperes

Hz hertz

 alternating current

n_0 no load speed

.../min revolutions or reciprocation per minute

FUNCTIONAL DESCRIPTION

Adjusting depth of cut

CAUTION:

Always be sure that the tool is switched off and unplugged before adjusting depth of cut.

Place the tool on a flat wood surface. Open the lock lever. Turn the motor unit until the bit just touches the flat surface. Close the lock lever.

Rotate the scale ring until the zero-line is on the index line on the motor unit.

One graduation on the scale ring means the cutting edge of the bit is exposed $1/64$ " below the base. While holding up the base slightly, open the lock lever and turn the motor unit clockwise until the index line on the motor unit reaches the desired depth indicated on the scale ring. Close the lock lever firmly.

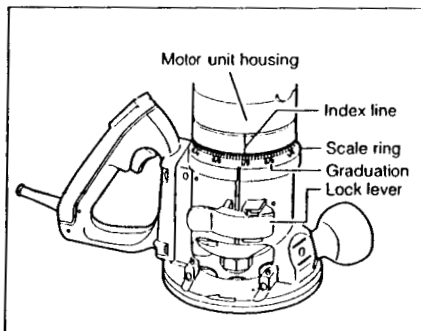


Fig. 1

Switch action

For RF1100 and RF1101

CAUTION:

Before plugging in the tool, always be sure that the tool is switched off.

To start the tool, move the switch lever to the "ON" position. To stop, move the switch lever to the "OFF" position. (Fig. 2)

For RD1100 and RD1101

CAUTION:

Before plugging in the tool, always check to see that the switch actuates properly and returns to the "OFF" position.

After connecting the motor unit cord to the outlet in the handle, move the switch lever to the "ON" position. (Fig. 3)

To start the tool, simply pull the switch trigger. Release the switch trigger to stop. For continuous operation, pull the switch trigger and then push in the lock button. To stop the tool from the locked position, pull the switch trigger fully, then release it.

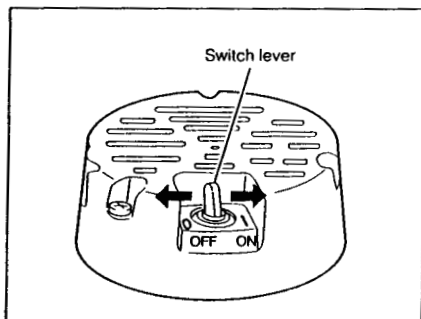


Fig. 2

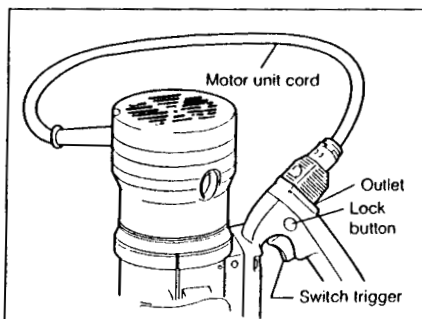


Fig. 3

Speed change (Model RF1101 and RD1101 only)

This tool allows infinitely variable tool speeds from 8,000 rpm to 24,000 rpm. This allows the bit speed to be adjusted to most ideally match the bit or cutter diameter and the type of material to be routed. This helps to produce top quality finished surfaces in a wide variety of materials including hardwood, softwoods or plastics. To change the tool speed, turn the speed change knob on the top of the tool. The tool speed can be adjusted between 8,000 rpm and 24,000 rpm. Numbers from 1 to 6 are indicated on the knob. Faster speeds are obtain by setting the knob to a higher number.

CAUTION:

Always turn the speed change knob only within the range of numbers 1 through 6. Never turn it beyond the number 1 or 6. The tool will be damaged.

ASSEMBLY

Installing or removing router bit

CAUTION:

Always be sure that the tool is switched off and unplugged before installing or removing the bit.

Remove the motor unit from the base as follows.

1. Open the lock lever. (Fig. 4)
2. While holding the base, turn the motor unit counterclockwise.
3. Turn it until the pin in the base is disengaged from the groove in the motor unit. Lift the motor unit free from the base.

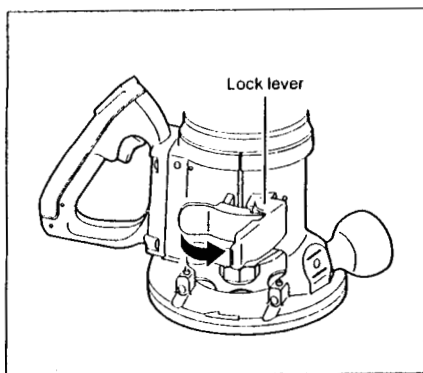


Fig. 4

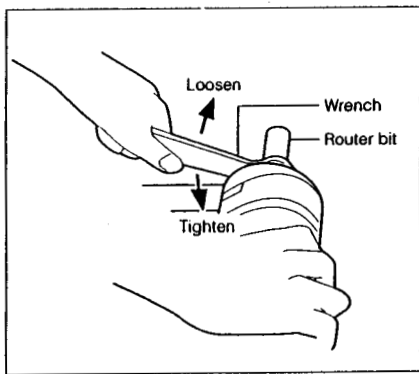


Fig. 5

Insert the bit all the way into the collet chuck and withdraw it very slightly (approx. 2 mm; 1/16"). Then tighten the collet chuck securely with the two wrenches. (Fig. 5)

These routers accommodate the bits with 1/2" diameter shank. When using the 1/4" diameter shank bit, replace the equipped collet chuck with the one for 1/4" diameter shank bit which is provided as the standard accessory. To remove the bit, follow the installation procedure in reverse.

CAUTION:

Do not tighten the collet chuck without inserting a bit, or the collet chuck will break.

Reinstall the motor unit

Install the motor unit into the base as follows.

1. Open the lock lever.
2. While holding the base, insert the motor unit into the base aligning the pin with the groove in the base. (Fig. 6)
3. Confirm that the pin and the groove are aligning. Rotate the motor unit clockwise into the base.
4. Close the lock lever.

CAUTION:

When using bit of bigger than 1-1/4" in diameter, install base plate with center hole diameter 2-1/2", replacing the original base plate.

FOR EQUIPPED WITH SWITCH-IN-HANDLE (Model RD1100 and RD1101)

- Connect the motor unit cord to the outlet in the handle. (Fig. 7)

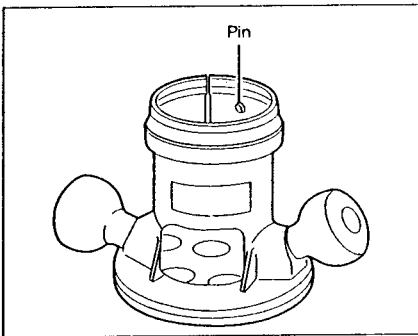


Fig. 7

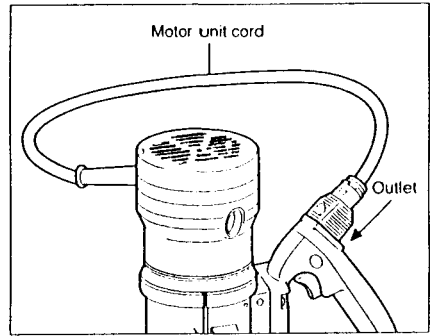


Fig. 6

OPERATION

- Set the tool base on the workpiece to be cut without the bit making any contact. Then turn the tool on and wait until the bit attains full speed. Move the tool forward over the workpiece surface, keeping the tool base flush and advancing smoothly until the cutting is complete.
- When doing edge cutting, the workpiece surface should be on the left side of the bit in the feed direction (See the figure below).

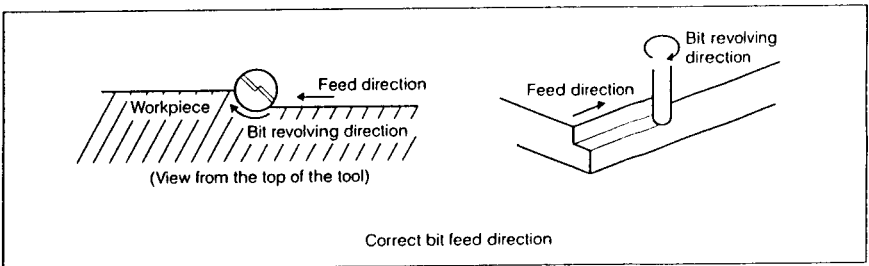


Fig. 8

NOTE:

- Moving the tool forward too fast may cause a poor quality of cut, or damage to the bit or motor. Moving the tool forward too slowly may burn and mar the cut. The proper feed rate will depend on the bit size, the kind of workpiece and depth of cut. Before beginning the cut on the actual workpiece, it is advisable to make a sample cut on a piece of scrap lumber. This will show exactly how the cut will look as well as enable you to check dimensions.
- When using the straight guide, be sure to install it on the right side in the feed direction. This will help to keep it flush with the side of the workpiece.

Straight guide (optional accessory)

The straight guide is effectively used for straight cuts when chamfering grooving.

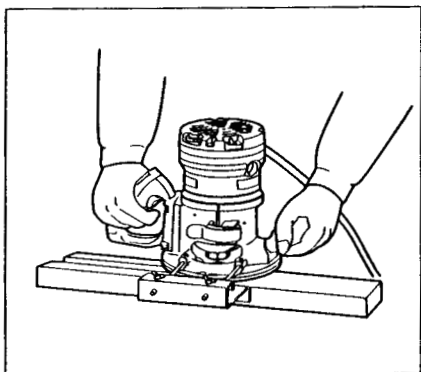


Fig. 9

To install the straight guide, insert the guide bars into the holes in the tool base. And adjust the distance between the bit and the straight guide. At the desired distance, tighten the hex. socket bolts to secure the straight guide in place.

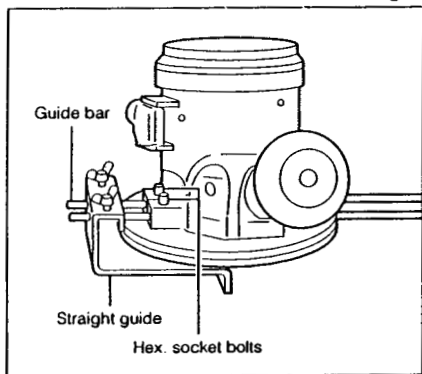


Fig. 10

When cutting, move the tool with the straight guide flush with the side of the workpiece.

Templet guide (optional accessory)

The templet guide provides sleeve through which the bit passes, allowing use of the router with templet patterns.

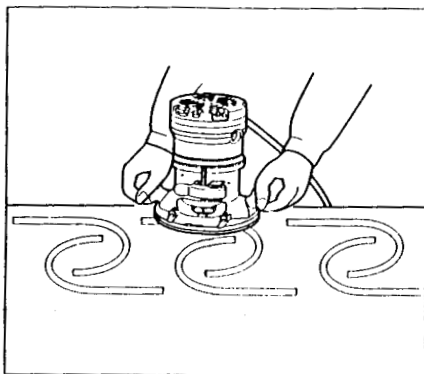


Fig. 11

To install, insert templet guide in center hole in base plate and secure in place with the lock nut.

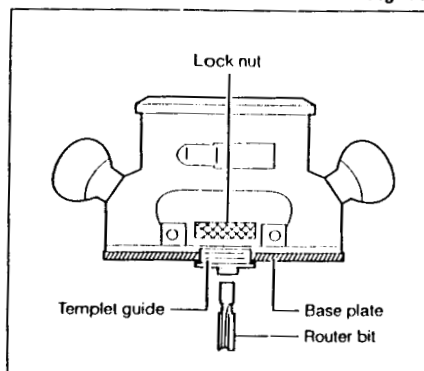


Fig. 12

Secure the templet to the workpiece. Place the tool on the templet and move the tool with the templet guide sliding along the side of the templet.

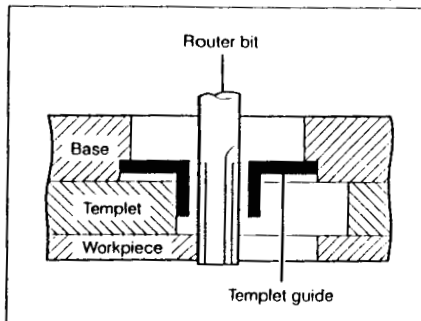


Fig. 13

MAINTENANCE

CAUTION:

Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

Replacing carbon brushes

Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical carbon brushes.

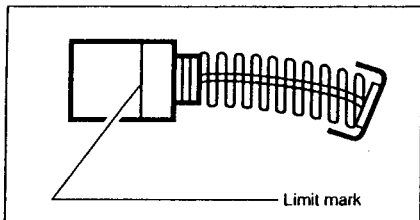


Fig. 14

Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.

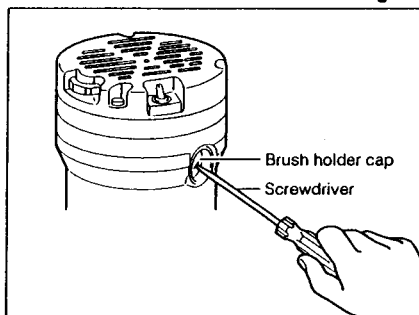


Fig. 15

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

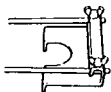
ACCESSORIES

CAUTION:

These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. The accessories or attachments should be used only in the proper and intended manner.

• Straight guide

Part No. 193073-1



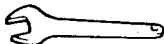
• Templet guide 25



Part No.	Templet guide	A	B	C
321812-1	25	22.6 (57/64")	25.4 (1")	11 (7/16")

• Wrench 27

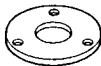
Part No. 781031-5



• Clear base plate

(Center hole 2-1/2")

Part No. 143155-9

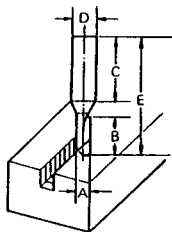


• Lock nut

Part No. 192178-4

Bits

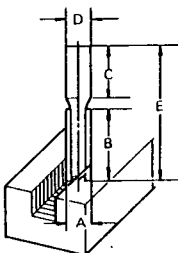
STRAIGHT – Single Flute



HIGH SPEED STEEL

PART NO.	A	B	C	D	E
733232-6A	1/8	5/16	1-1/8	1/4	1-5/8

STRAIGHT – 2 Flute



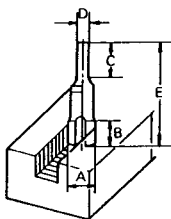
CARBIDE TIPPED

PART NO.	A	B	C	D	E
733003-2A	3/16	7/16	1-3/8	1/4	2
733003-4A	1/4	3/4	1-3/16	1/4	2-1/8
733003-8A	5/16	1	1-1/8	1/4	2-3/16

HIGH SPEED STEEL (STRAIGHT – 2 Flute)

PART NO.	A	B	C	D	E
733233-4A	5/16	7/8	1-3/16	1/4	2-1/8
733234-2A	1/2	7/8	1-1/8	1/4	2-1/8

HINGE MORTISING



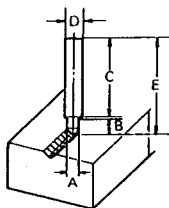
CARBIDE TIPPED

PART NO.	A	B	C	D	E
733006-9A	1/2	1/2	1-1/16	1/4	1-13/16

HIGH SPEED STEEL

PART NO.	A	B	C	D	E
733235-0A	1/2	1/2	3/4	1/4	1-15/16

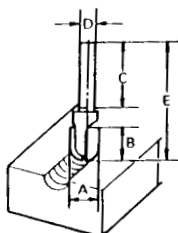
VEINING – Single Flute



SOLID CARBIDE

PART NO.	A	B	C	D	E
733007-8A	3/16	7/32	1-1/4	1/4	1-1/2

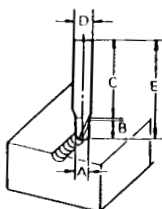
ROUND NOSE



CARBIDE TIPPED

PART NO.	A	B	C	D	E
733008-2A	1/4	15/32	1-1/4	1/4	1-7/8
733008-4A	3/8	9/16	1-1/4	1/4	2
733008-6A	1/2	11/16	1-1/4	1/4	2-3/16
733008-8A	5/8	11/16	1-1/4	1/4	2-1/4
733009-0A	3/4	13/16	1-1/4	1/4	2-3/8

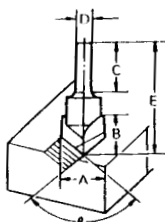
CORE BOX



HIGH SPEED STEEL

PART NO.	A	B	C	D	E
733238-2A	1/4	1/4	1-3/16	1/4	1-1/2

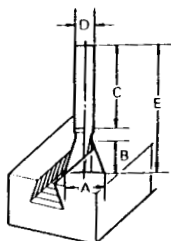
VEE GROOVING



CARBIDE TIPPED

PART NO.	A	B	C	D	E	θ
733009-2A	3/8	1/2	1-3/16	1/4	2	90°
733009-4A	5/8	3/4	15/16	1/4	2	90°

14° DOVETAIL



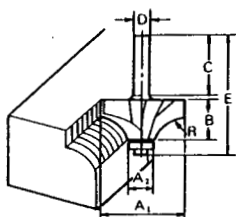
CARBIDE TIPPED

PART NO.	A	B	C	D	E
733009-6A	1/2	1/2	1-1/4	1/4	1-7/8

HIGH SPEED STEEL

PART NO.	A	B	C	D	E
733239-6A	1/2	1/2	1-3/8	1/4	2

CORNER ROUNDING



CARBIDE TIPPED – Ball Bearing Pilot

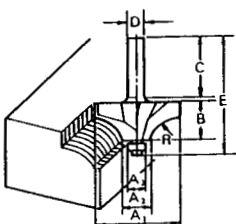
PART NO.	A ₁	A ₂	B	C	D	E	R
733120-0A	7/8	1/2	3/8	1-1/4	1/4	1-15/16	3/16
733120-2A	1	1/2	1/2	1-1/4	1/4	2	1/4
733120-4A	1-1/8	1/2	1/2	1-1/4	1/4	2-1/16	5/16
733120-6A	1-1/4	1/2	5/8	1-1/4	1/4	2-1/8	3/8
733121-0A	1-1/4	1/2	5/8	1-1/2	1/2	2-3/8	3/8

REPLACEMENT BEARING – NO. 733132-4A

HIGH SPEED STEEL – Solid Pilot

PART NO.	A ₁	A ₂	B	C	D	E	R
733240-2A	11/16	3/16	1/2	1	1/4	1-3/4	1/4
733240-6A	15/16	3/16	5/8	1	1/4	1-7/8	3/8

BEADING

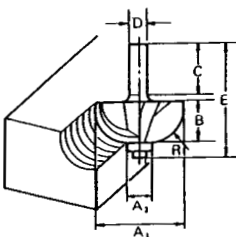


CARBIDE TIPPED – Ball Bearing Pilot

PART NO.	A ₁	A ₂	A ₃	B	C	D	E	R
733121-4A	7/8	1/2	3/8	3/8	1-1/4	1/4	1-15/16	3/16
733121-6A	1	1/2	3/8	1/2	1-1/4	1/4	2	1/4
733121-8A	1-1/8	1/2	3/8	1/2	1-1/4	1/4	2-1/16	5/16
733122-0A	1-1/4	1/2	3/8	5/8	1-1/4	1/4	2-1/8	3/8

REPLACEMENT BEARING – NO. 733132-2A

COVE



CARBIDE TIPPED – Ball Bearing Pilot

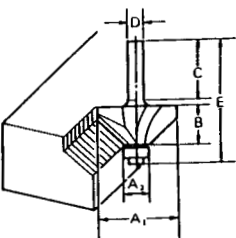
PART NO.	A ₁	A ₂	B	C	D	E	R
733122-6A	7/8	3/8	3/8	1	1/4	1-5/8	1/4
733122-8A	1-1/8	3/8	1/2	1	1/4	1-3/4	3/8
733123-0A	1-3/8	3/8	5/8	1	1/4	1-7/8	1/2

REPLACEMENT BEARING – NO. 733132-2A

HIGH SPEED STEEL – Solid Pilot

PART NO.	A ₁	A ₂	B	C	D	E	R
733242-6A	11/16	3/16	1/2	1	1/4	1-3/4	1/4
733242-8A	15/16	3/16	3/4	1	1/4	2-1/32	3/8

45° CHAMFERING

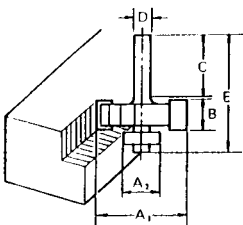


CARBIDE TIPPED – Ball Bearing Pilot

PART NO.	A ₁	A ₂	B	C	D	E
733124-4A	1-3/16	1/2	1/2	1-1/4	1/4	2-1/4

REPLACEMENT BEARING – NO. 733132-4A

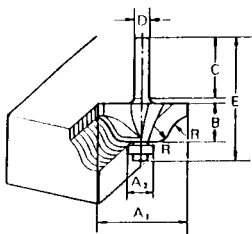
RABBETING



CARBIDE TIPPED — Ball Bearing Pilot

PART NO.	A ₁	A ₂	B	C	D	E
733124-2A	1-1/4	1/2	1/2	1-7/16	1/4	2-1/4
REPLACEMENT BEARING — NO. 733132-4A						

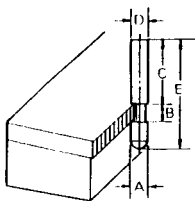
ROMAN OGEE



CARBIDE TIPPED — Ball Bearing Pilot

PART NO.	A ₁	A ₂	B	C	D	E	R
733123-2A	1	3/8	15/32	1-1/4	1/4	2	5/32
733123-4A	1-3/8	3/8	21/32	1-1/4	1/4	2-1/8	1/4
REPLACEMENT BEARING — NO. 733132-2A							

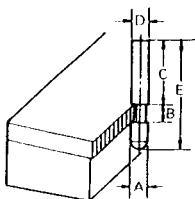
FLUSH TRIMMER — Self Piloting



SOLID CARBIDE

PART NO.	A	B	C	D	E
733128-0A	1/4	1/4	1-1/16	1/4	1-9/16

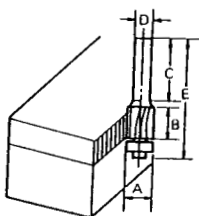
7° BEVEL TRIMMER — Self-Piloting



SOLID CARBIDE

PART NO.	A	B	C	D	E
733128-2A	3/16	1/4	1-1/16	1/4	1-9/16

2 FLUTE FLUSH TRIMMER

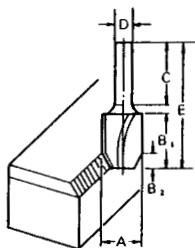


CARBIDE TIPPED

PART NO.	A	B	C	D	E
733128-8A	3/8	1	1-1/4	1/4	2-1/16
733128-9A	1/2	1/2	1-1/4	1/4	2-1/16
733129-0A	1/2	1	1-1/4	1/4	2-5/8

3/8" REPLACEMENT BEARING - NO. 733132-2A
1/2" REPLACEMENT BEARING - NO. 733132-4A

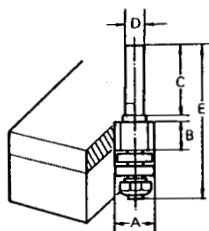
4 / 22° BEVEL TRIMMER



CARBIDE TIPPED

PART NO.	A	B ₁	B ₂	C	D	E
733128-6A	7/16	1/2	3/16	1-1/4	1/4	1-3/4

3 FLUTE FLUSH TRIMMER ASSEMBLY - Self Piloting

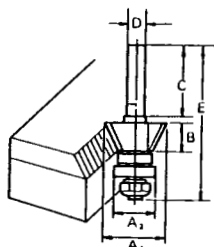


SOLID CARBIDE CUTTER

PART NO.	A	B	C	D	E
733129-2A	5/8	3/8	1-1/4	1/4	2-3/8

REPLACEMENT BEARING - NO. 733132-6A

3 FLUTE 22° BEVEL TRIMMER ASSEMBLY - Self Piloting

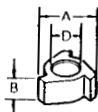


SOLID CARBIDE CUTTER

PART NO.	A ₁	A ₂	B	C	D	E
733129-4A	7/8	5/8	3/8	1-1/4	1/4	2-3/8

REPLACEMENT BEARING - NO. 733132-6A

3 FLUTE FLUSH REPLACEMENT CUTTER

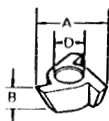


SOLID CARBIDE

PART NO.	A	B	D
733129-6A	5/8	3/8	1/4

FOR FLUSH TRIMMER ASSEMBLY NO. 733129-2A

FLUTE 22° BEVEL REPLACEMENT CUTTER

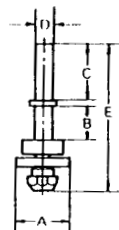


SOLID CARBIDE

PART NO.	A	B	D
733129-8A	7/8	3/8	1/4

FOR BEVEL TRIMMER ASSEMBLY NO. 733129-4A

1/4" REPLACEMENT ARBOR



PART NO.	A	B	C	D	E
733131-2A	5/8	3/8	1-1/4	1/4	2-3/8

FOR FLUSH TRIMMER ASSEMBLY NO. 733129-2A
AND NO. 733129-4A

BALL BEARING PILOT



PART NO.	D ₁	D ₂
733132-2A	3/8 O.D.	1/8 I.D.
733132-4A	1/2 O.D.	3/16 I.D.
733132-6A	5/8 O.D.	1/4 I.D.

MAKITA LIMITED ONE YEAR WARRANTY

Warranty Policy

Every Makita tool is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects from workmanship and materials for the period of ONE YEAR from the date of original purchase. Should any trouble develop during this one-year period, return the COMPLETE tool, freight prepaid, to one of Makita's Factory or Authorized Service Centers. If inspection shows the trouble is caused by defective workmanship or material, Makita will repair (or at our option, replace) without charge.

This Warranty does not apply where:

- repairs have been made or attempted by others;
- repairs are required because of normal wear and tear;
- The tool has been abused, misused or improperly maintained;
- alterations have been made to the tool.

IN NO EVENT SHALL MAKITA BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES FROM THE SALE OR USE OF THE PRODUCT. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF THIS WARRANTY.

MAKITA DISCLAIMS LIABILITY FOR ANY IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF "MERCHANTABILITY" AND "FITNESS FOR A SPECIFIC PURPOSE," AFTER THE ONE-YEAR TERM OF THIS WARRANTY.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

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884304 — 068

PRINTED IN JAPAN
2000 — 1 — N